

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027808**Date Inspected:** 23-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

OBG East

This QA Inspector randomly observed the repair welding operations performed by ABF welder Edward Brown #9331 at 13E PP122.5-E2.1 BF1. The welder was observed depositing metal by utilizing the SMAW process in the 4G overhead position employing 3.2mm E7018-H4R electrodes drawing amperage of 129 as pertaining to ABF-WPS-D1.5-1004-Repair. This QA Inspector verified that the electrodes were obtained from a baking oven at the correct temperature and within acceptable exposure limits. The welder was observed cleaning the start/stop edges of the work utilizing small disc grinders and compressed air and restored the base metal to the original surface and ground smooth, and the welds to their specific profiles. At the end of the shift, Post Weld Heat Treatment (PWHT) was applied to the completed weld surface at 230°C (450°F) for a period of 1 hour in accordance with Section 12.15 of AWS D1.5-2002. The repairs were noted as being in progress and appears to be in general conformance with the contract specifications. This QA Inspector referenced RWR 201206-039 during the observations.

This QA Inspector randomly observed ABF/JV qualified welder Steven Davis #7889 performing SMAW using 3.2mm" diameter E7018-H4R electrodes and implementing Caltrans approved WPS ABF-WPS-D1.5-1080-Revision 1. The joint being welded was 13E PP124-E2.2-BR1 a complete Joint Penetration (CJP) welded

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in the 3G Vertical and 4G Overhead positions. During welding, ABF QC Salvador Merino was noted as monitoring the welding parameters. Welding parameters were recorded as A=125. Upon completion of the back gouge QC performed Magnetic Particle (MT) Inspection of the site to ensure soundness of the metal. This QA Inspector noted that QC found no relevant indications. On a subsequent observation this QA Inspector noted that between passes the welder was cleaning the work using a small disc grinder as QC measured the inter-pass temperatures with Tempilstik Heat Indicators. At the time of the observations no issues were noted by this QA Inspector. On subsequent observations to monitor quality, it was noted that the work is in progress and appears to be in general conformance with the contract documents.

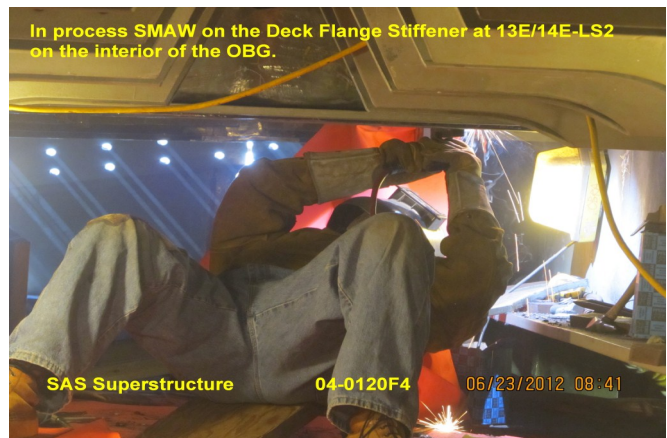
This QA inspector observed at random intervals ABF/JV qualified welder Richard Garcia #5892 performing SMAW in the 4G Overhead position with E9018-M-HR electrodes drawing amperage of 127 utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1162-4. The welds are Partial Joint Penetration (PJP) butt joint splice Deck Stiffener Flange (DSF) to 13E/14E-Longitudinal Stiffener-2 (LS-2). The weld surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed by ABF personnel prior to welding. The ABF Quality Control (QC) Salvador Merino was noted monitoring the welding parameters during welding. The welding at this location was observed to be in progress and appeared to be in general conformance with the contract documents.

This QA Inspector observed at random intervals, the fit up of the Deck Access Hole DAH at 5E PP29.5 E5-DAH on the exterior of the OBG. ABF/JV qualified welder Todd Jackson #4639 was observed tack welding temporary attachments for alignment. It was noted that no welding in the joint commenced on this date.

This QA Inspector randomly observed Quality Control Inspector Salvador Merino conduct MT testing on the excavation of y+3835mm on the DAH located at 8W PP70.5 W2-DAH on the interior of the OBG. This QA Inspector noted that Mr. Merino found no rejectable indications. This QA Inspector randomly observed ABF/JV qualified welder Eric Sparks #3040 perform the repair weld in the SMAW process in the 4G overhead position using E7018-H4R electrodes drawing amperage of 128. QC Inspector Steve Jensen was present to monitor the welding and the parameters as they pertained to ABF-WPS-D1.5-1001-Repair. On subsequent observations to monitor quality it was noted by this QA Inspector that the work was completed and appeared to be in general conformance with the contract documents.

Summary of Conversations:

Conversations were relevant to welding performed and information unique with each location.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
